

What is claimed is:

1. An accountability and identification system, comprising:
a plurality of touch sensors, each touch sensor including
a memory and
information stored in the memory,
at least one of the touch sensors being a personal
identification touch sensor having user information on a unique
user stored in the memory; and
at least one instrument, each instrument including
a receptacle adapted for momentarily receiving the
personal identification touch sensor to read the user
information stored therein,
a microprocessor in electrical communication with the
receptacle, the microprocessor having a memory portion for
storing operating software and the user information read by the
receptacle, and
a display in electrical communication with the
microprocessor, the display providing a visual indication of
portions of the user information selected by the operating
software.
2. The information and identification system of claim 1 wherein
the memory portion of the microprocessor comprises flash memory
and read only memory.
3. The information and identification system of claim 1 wherein
the memory of the touch sensor comprises a programmable silicon
chip.

4. The information and identification system of claim 1 wherein the user information includes a user identifier, next of kin, role, and medical information unique to the user.

5 5. The information and identification system of claim 1 wherein the microprocessor also has a data port, each touch sensor also includes first and second electrical contacts, and the receptacle has first and second electrical contacts in electrical communication with the data port, the first and second electrical contacts of the touch sensor being contacted to the first and second electrical contacts of the receptacle, respectively, to read the information stored in the memory of the touch sensor.

6. The information and identification system of claim 1 wherein at least one of the touch sensors is a data touch sensor having user information on a unique group of users stored in the memory.

7. The information and identification system of claim 1 wherein at least one of the touch sensors is a data touch sensor having incident data stored in the memory.

8. The information and identification system of claim 1 wherein each instrument includes an operator interface in electrical communication with the microprocessor for controlling operation of the operating software.

9. The information and identification system of claim 8 wherein the operating software includes station, accountability, and sector modes of operation and the operator interface includes a mode button for selecting the mode of operation.

10. The information and identification system of claim 9 wherein the operator interface includes first and second function buttons and the operating software includes WHO, YES, NO, ADD, OUT, acknowledge (ACK), TIME, and Personnel Accountability Report (PAR) initiation functions, the mode of operation assigning one of the software functions to the first and second function buttons.

11. The information and identification system of claim 8 wherein the operator interface includes a pair of scroll buttons.

12. The information and identification system of claim 1 wherein each instrument includes an infrared port, the operating software controlling transmission of data through the infrared port.

13. The information and identification system of claim 1 wherein the operating software includes station, accountability, and sector modes of operation, wherein all instruments operating in sector mode communicate with a single instrument operating in accountability mode.

14. The information and identification system of claim 13 wherein each instrument further includes a radio or cellular component providing communications between the instruments operating in sector mode and the instrument operating in accountability mode.

15. The information and identification system of claim 1 further including an immediate danger to life and health (IDLH) device, one of the touch sensors being an IDLH touch sensor mounted to the IDLH device, the IDLH touch sensor having IDLH information unique to the specific IDLH device stored in the memory.

16. The information and identification system of claim 15 wherein the IDLH information is selected from the group consisting of a unique identifier, the name of the IDLH device, the rated lifetime of the IDLH device, the remaining lifetime of the IDLH device, and the time the IDLH device was logged-out for use.

17. The information and identification system of claim 1 further including a central record keeping computer adapted for receiving data from an instrument.

18. A method of providing accountability for individual firefighters, firefighting units, and firefighting equipment at a fire scene comprising the steps of:

recording user information pertaining to one firefighter into memory contained in a unique personal identification touch sensor carried by the firefighter;

repeating the above step for each firefighter;

logging-in firefighters assigned to a firefighting unit into a unit instrument at the start of each work shift by touching the personal identification touch sensor of each firefighter to a receptacle of the unit instrument, whereby the user information is read by the receptacle and stored into a memory contained in the unit instrument, forming a unit roster of on-duty firefighters;

carrying the unit instrument to the scene of each fire visited by the firefighting unit;

while at the fire scene, indicating in the memory of the unit instrument which firefighters of the unit roster are currently positioned in a dangerous environment; and

logging-out each firefighter from the unit roster at the end of each work shift by touching the personal identification touch sensor of the firefighter to the receptacle of the unit instrument.

5 19. The method of claim 18 further comprising the step of logging-out firefighters from the unit roster as they individually leave the fire scene and logging-in individual firefighters to the unit roster who are newly arrived at the scene by touching the personal identification touch sensor of such firefighters to the receptacle of the unit instrument.

10 20. The method of claim 18 further comprising the step of periodically performing a personnel accountability report while at the scene of each fire to verify the location of each firefighter of the unit roster.

15 21. The method of claim 20 further comprising the step of indicating in the memory of the unit instrument the identity of firefighters of the unit roster who cannot be located at the time of the personnel accountability report.

20 22. The method of claim 18 further comprising the step of manually logging-out firefighters from the unit roster with a user interface of the unit instrument when the firefighter's personal identification touch sensor is not available for use.

25 23. The method of claim 18 further comprising the step of manually logging-in firefighters into the unit roster with a user interface of the unit instrument when the firefighter's personal identification touch sensor is not available for use.

24. The method of claim 23 further comprising the step of assigning a unique guest identifier to each manually logged-in firefighter.

5 25. The method of claim 18 further comprising the step of indicating in the memory of the unit instrument which firefighters of the unit roster have IDLH equipment assigned to them.

26. The method of claim 25 wherein the step of indicating includes the sub-steps of:

10 scrolling through the unit roster with a user interface of the unit instrument until the identifier of the firefighter appears in a display of the unit instrument; and

15 touching an IDLH touch sensor mounted on the IDLH equipment to the receptacle of the unit instrument, whereby IDLH information stored in the IDLH touch sensor is read by the receptacle, correlated with the record of the firefighter whose identifier is shown in the display, and stored into a memory contained in the unit instrument.

20 27. The method of claim 26 wherein the IDLH information includes the remaining useful lifetime of the IDLH equipment and the method further comprises the step of initiating a timer routine in a microprocessor contained in the unit instrument which counts-down the remaining useful lifetime and provides at least one indication as the count-down approaches the end of such useful lifetime.

25 28. The method of claim 18 wherein multiple firefighting units are present at the fire scene, each of the firefighting units having a unit

instrument containing a unit roster stored in the memory of the unit instrument, the method further comprising the steps of:

designating one of the firefighting units as a command unit and the unit instrument of the command unit as a central accountability instrument;

designating each of the other firefighting units as sector units and the unit instruments of each of the sector units as sector instruments; and

logging-in each sector unit into the central accountability instrument.

29. The method of claim 28 wherein the step of logging-in the sector units comprises the sub-steps of:

copying the unit roster of each sector instrument into a memory contained in a data touch sensor by touching the data touch sensor to the receptacle of the sector instrument, whereby the unit roster is read by the data touch sensor and stored in the memory; and

touching the data touch sensor to the receptacle of the central accountability instrument, whereby a unique sector unit identifier and the unit roster information of the sector unit is read by the receptacle and stored into the memory of the central accountability instrument.

30. The method of claim 29 further comprising the step of maintaining first level and second level tiers of data within the memory of the central accountability instrument, the first level tier including the unit roster of firefighters who are individually logged-in to the central accountability instrument and the sector unit identifiers of each sector unit logged-in to the central accountability instrument, the second level tier including the unit rosters of each sector unit logged-in to the central accountability instrument.

31. The method of claim 28 further comprising the step of communicating changes in the information stored in the sector instruments to the central accountability instrument.

5 32. The method of claim 31 wherein the step of communicating is performed periodically by software stored in the memory of each of the sector instruments with a transmitter/receiver contained in each unit instrument.

10 33. The method of claim 18 further comprising the step of downloading data recorded in the memory of the unit instrument into a central computer after the firefighting unit has left the fire scene.